

EXHIBIT 17

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

GOOGLE LLC,

Plaintiff,

vs.

Case No. 3:20-cv-06754 WHA

Related to Case No.

3:21-cv-07559 WHA

SONOS, INC.,

Defendant.

REMOTE VIDEOTAPED DEPOSITION BY VIRTUAL ZOOM OF
CHRISTOS KYRIAKAKIS, Ph.D.
Tuesday, March 1, 2022

Reported By: Lynne Ledanois, CSR 6811

Job No. 5112102

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

-----x

GOOGLE LLC,

Plaintiff,

vs.

Case No. 3:20-cv-06754 WHA

Related to Case No.

3:21-cv-07559-WHA

SONOS, INC.,

Defendant.

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Videotaped deposition of CHRISTOS
KYRIAKAKIS, taken in Los Angeles, California,
commencing at 9:09 a.m., on Tuesday, March 1, 2022
before Lynne Ledanois, Certified Shorthand Reporter
No. 6811

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ALSO PRESENT:

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I N D E X O F E X A M I N A T I O N

Examination by:	Page
Mr. Pak	7

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I N D E X O F E X H I B I T S

Deposition	Description	Page
Exhibit 1	Declaration of Dr. Kyriakakis;	12
Exhibit 2	US Patent No. 9,967,615 B2;	33
Exhibit 3	Document headed, Playing Tracks in Playlists;	35
Exhibit 4	Document headed, Exhibit B, Help Guide - Sony;	37
Exhibit 5	Document headed, How to Operate with a Smartphone;	39
Exhibit 6	Document headed, Configuring the Shuffle Play or Repeat Mode;	42
Exhibit 7	Document headed, Listening to the TuneIn Music Services;	44
Exhibit 8	Document headed, Exhibit F, Vista;	47
Exhibit 9	Document headed, Exhibit E, Controller Guide;	52
Exhibit 10	Document headed, Introduction to Persistent Uniform Resource Locators;	64
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Tuesday, March 1, 2022

9:09 a.m.

VIDEOGRAPHER: We're on the record at

9:09 a.m. on March 1st, 2022.

9:09AM

Audio and video recording will continue to take place unless all parties agree to go off the record.

This is Media Unit Number 1 of the video-recorded deposition of Chris Kyriakakis, Ph.D., taken by counsel for Sonos Inc. in the matter of Google LLC versus Sonos Inc. filed in the United States District Court for the Northern District of California, San Francisco Division. Case Number 3:21-cv-07559-WHA.

9:10AM

9:10AM

This deposition is taking place through Veritext Zoom technology. All participants are attending remotely.

My name is Steven Togami from the firm Veritext Legal Solutions and I'm the videographer. The court reporter is Lynne Ledanois from the firm Veritext Legal Solutions.

9:10AM

I'm not related to any party in this action, nor am I financially interested in the outcome.

9:11AM

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1 If there are any objections to proceeding, 9:11AM
2 please state them at the time of your appearance.

At this time will counsel and all present
please state their appearances and affiliations for
the record starting with the noticing party.

9:11AM

6 MR. PAK: This is Jae Pak from Lee
7 Sullivan Shea & Smith representing Sonos Inc. I
8 also have with me George Lee from the same firm.

9	MR. HEFAZI: This is Nima Hefazi of Quinn	
10	Emanuel on behalf of Google.	9:11AM

11 VIDEOGRAPHER: Thank you. Could we please
12 have the oath.

13

14 CHRISTOS KYRIAKAKIS, PH.D.,

15 having been duly sworn, testified as follows: 9:11AM

16 _____

17 EXAMINATION

18 BY MR. PAK:

19 Q Dr. K, could you please state your full
20 name and spell your name for the record, please. 9:12AM

21	A	My name is Chris, C-H-R-I-S, last name
22		Kyriakakis, K-Y-R-I-A-K-A-K-I-S.

23 Q Do you recall I depose you for the
24 Sonos v. Google case in the Western District of
25 Texas on June 11, 2021? 9:12AM

1	A	Yes.	9:12AM
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2 Q Have you been deposed by anyone since that
3 time?

4	A	No.
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5 Q Just so we're on the same page, I want to 9:12AM
6 run through some general guidelines and the same
7 guidelines as last time. Bear with me here.

8 Number one, I'll ask you questions and you
9 must give truthful answers.

10 Number two, your counsel may object to 9:12AM
11 questions but unless your counsel instructs you not
12 to answer, you still have to answer despite the
13 objection.

14	Number three, if you don't understand a	
15	question or need clarification, please ask.	9:13AM
16	Otherwise, I'll assume that you understand the	
17	question.	

18 Number four, we'll plan to take a break
19 every hour or so. If you need a break outside of
20 that schedule, let me know and I can try to
21 accommodate your request.

9:13AM

22 I just ask that you finish any pending
23 question before we go on break.

24 Number five, the court reporter will be

25 transcribing our discussion today, so I'll need you 9:13AM

1 to give verbal answers as opposed to head nods. 9:13AM

2 Understood?

3 A Yes.

4 Q Okay. You submitted a declaration on
5 February 11th for this matter between Sonos and 9:13AM
6 Google; correct?

7 A That's correct.

8 Q You're retained as an expert to offer your
9 opinions on claim construction related to the '615
10 and '033 patents asserted in this case; correct? 9:13AM

11 A Yes, correct.

12 Q Specifically you were retained as an
13 expert to offer your opinions on the terms "playback
14 queue" and "resource locator"; correct?

15 A Correct. 9:14AM

16 Q When were you contacted to offer your
17 opinions on claim construction for the terms
18 "playback queue" and "resource locator"?

19 A I don't have the exact date. It was
20 approximately in January of this year, something like 9:14AM
21 that. It was around that time.

22 Q Were you informed of what each party's
23 construction was at the time?

24 MR. HEFAZI: I'll caution the witness --
25 you're starting to get into privileged issues, what 9:14AM

1 he was told between the attorneys. 9:14AM

2 BY MR. PAK:

3 Q I'm not asking for any specifics.

4 Just yes or no, were you informed of what

5 each party's construction was at the time? 9:14AM

6 A I was informed of the -- there was a table
7 of Google's proposed construction and Sonos's proposed
8 construction. I just don't remember the --

9 THE REPORTER: I'm sorry, Dr. K. I didn't
10 hear that. Could you start over, please? "I was 9:14AM
11 informed..."

12 MR. HEFAZI: I think, Dr. K, you should
13 just answer yes or no. I don't think --

14 THE WITNESS: Okay. There was --

15 MR. HEFAZI: You're starting to get into 9:15AM
16 privileged. I'll let him answer this one, but this
17 line of questioning, let's see where it goes.

18 THE WITNESS: Yes, I was informed.

19 BY MR. PAK:

20 Q What did your analysis involve in 9:15AM
21 preparing your declaration?

22 A It involved --

23 MR. HEFAZI: Again, just to caution the
24 witness here, you can speak at a high level about
25 the process, but I don't want you getting into 9:15AM

1 specific drafts or conversations with attorneys. 9:15AM

2 THE WITNESS: Understood.

3 It involved reading, rereading the
4 patents, analyzing the claims, looking at some
5 external references and also just putting my 9:16AM
6 thoughts of my knowledge of the field in order, so
7 it was kind of the usual way that one would do this.

8 BY MR. PAK:

9 Q When was the last time you read the '615
10 or '033 patent? 9:16AM

11 A The last time was yesterday in preparing for
12 the deposition.

13 Q Do you understand that Sonos's expert,
14 Dr. Smith, also submitted a declaration on claim
15 construction regarding the terms "playback queue" 9:16AM
16 and "resource locator"?

17 A I do, yes.

18 MR. PAK: I would like to introduce an
19 exhibit now, so just bear with me here.

20 MR. HEFAZI: Dr. Kyriakakis, while he's 9:16AM
21 doing that, if you could leave a little bit more
22 time between the question and the answer just so I
23 have time to object.

24 THE WITNESS: Okay.

25 (Discussion off the record.) 9:17AM

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1 VIDEOGRAPHER: Going off the record at 9:18AM
2 9:18 a.m.
3 (Recess taken.)
4 VIDEOGRAPHER: Going back on the record at
5 9:19 a.m. 9:19AM
6 BY MR. PAK:
7 Q Dr. K, I just introduced an exhibit marked
8 as Exhibit 1. Let me know if you can see that.
9 (Exhibit 1 was marked for identification.)
10 THE WITNESS: Yes, I see it. Let me open 9:19AM
11 it. Yes.
12 BY MR. PAK:
13 Q Is this a true and accurate copy of your
14 February 11th declaration?
15 A It is. 9:20AM
16 Q Let's go to the last page.
17 A Okay.
18 Q Is that your signature at the end?
19 A Yes, it is.
20 Q The opinions set forth in this declaration 9:20AM
21 are yours; correct?
22 A Yes, they are.
23 Q Now, I know you submitted a declaration in
24 the Western District of Texas case, but to date this
25 is the only declaration that you submitted in this 9:20AM

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1 Northern District of California case; correct? 9:20AM

2 A Yes, that's correct.

3 Q Your declaration is as accurate and
4 complete as you could reasonably make it; correct?

5 A Yes. 9:20AM

6 Q Let's walk through your declaration.

7 Section 2, Paragraphs 8 through 13, those
8 paragraphs set forth your qualifications as an
9 expert; correct?

10 A Correct. 9:21AM

11 Q Section 3, Paragraphs 14 to 19 sets forth
12 your understanding of various legal standards
13 affiliated to claim construction; correct?

14 A Correct.

15 Q In reaching your opinions set forth in 9:21AM
16 your declaration, did you apply the legal standards
17 set forth in Section 3?

18 A Yes, to the best of my ability, even though
19 I'm not a lawyer.

20 Q Section 4, Paragraphs 20 through 24 sets 9:21AM
21 forth your general understanding of music queues or
22 play queues; correct?

23 A Yes.

24 Q Are the terms "music queue" and "play
25 queue" synonymous with the term "playback queue"? 9:21AM

1 A I believe so. I think they are used 9:21AM
2 interchangeably in the industry, yes.

3 Q Okay. Section 4, Paragraphs 25 through 29
4 sets forth your general understanding of internet
5 resources; correct? 9:21AM

6	A	Yes.
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7 Q Moving on to Section 5, Paragraphs 30 to
8 35, you provide an overview of the '615 and '033;
9 correct?

10	A	Correct.	9:22AM
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11 Q And according to Paragraph 30, the '615
12 and '033 patents share a common specification;
13 correct?

14	A	Yes.
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15 Q Moving on to Section 6, Paragraphs 36 to 9:22AM
16 40, those paragraphs set forth your opinion
17 regarding the level of ordinary skill in the art;
18 correct?

19	A	Correct.
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20 MR. HEFAZI: Dr. Kyriakakis, if you could 9:22AM
21 just take a couple of seconds before you answer so
22 that I can object if necessary.

23 THE WITNESS: Okay.

24 BY MR. PAK:

25	Q	Section 7, Paragraphs 41 to 42 sets forth	9:22AM
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1 your understanding of the asserted claims and the 9:22AM
2 scope of your analysis; correct?

3 A Correct.

4 Q Section 8, Paragraphs 43 to 54 provide
5 your analysis regarding the term "playback queue"; 9:23AM
6 correct?

7 A Yes, that's right.

8 Q Paragraphs 55 to 72 provide your analysis
9 regarding the term "resource locator"; correct?

10 A Correct. 9:23AM

11 Q We just walked through your declaration.
12 Do you have any changes that you want to
13 make to this declaration?

14 A I think Nima is saying something, but we
15 can't hear him. 9:23AM

16 MR. HEFAZI: I was just going to say
17 objection, form.

18 THE WITNESS: I do not have any changes.
19 BY MR. PAK:

20 Q Let's look at Paragraph 20 of your 9:23AM
21 declaration.

22 A Okay.

23 Q Here you opine that "devices and
24 applications that streamed music (for example, Sonos
25 and Spotify) often permitted users to create, edit 9:24AM

1 and manage queues of music." Then you cite to 9:24AM

2 Exhibits B, C and D.

3 Do you see that?

4 A Yes.

5 Q Exhibit B is an excerpt of the Sony HDD 9:24AM
6 audio remote manual; correct?

7 A Correct.

8 Q Have you used the Sony HDD audio remote
9 before?

10 A I have, yes. A long time ago but yes, I 9:24AM
11 have used it.

12 Q When was the last time you used the Sony
13 HDD audio remote?

14 A Several years ago. I don't remember the
15 date. 9:24AM

16 Q Was it more than ten years ago?

17 A I don't think so.

18 Q Is it your opinion that the play queue
19 described in Sony's HDD audio remote manual reflects
20 how a person of ordinary skill in the art would 9:25AM
21 ordinarily or customarily understand the term
22 "playback queue"?

23 A Yes.

24 Q Exhibits C and D are articles that mention
25 Spotify's play queue; is that correct? 9:25AM

1 A Correct. 9:25AM

2 Q Have you used the Spotify app before?

3 A Yes, I have.

4 Q When was the last time you used the

5 Spotify app? 9:25AM

6 A This morning.

7 Q When was the first time you used the

8 Spotify app?

9 A Again, it's many years, but I don't recall.

10 From the early days of Spotify I would say. 9:25AM

11 Q It's your opinion that Spotify's play

12 queue reflects how a person of ordinary skill in the

13 art would ordinarily or customarily understand the

14 term "playback queue"?

15 A Yes, it is. 9:26AM

16 Q Let's look at Paragraph 21 of your

17 declaration.

18 The first sentence here you opine that

19 "Sonos's products also included the ability for

20 users to create a music queue," and then you cite to 9:26AM

21 Exhibit E, which appears to be a 2011 version of the

22 "Sonos's Controller for Mac or PC Product Guide";

23 correct?

24 A Yes, that's correct.

25 Q Have you used the Sonos controller for Mac 9:26AM

1 or PC before? 9:26AM

2 A I did in the early days, again, when it came
3 out. I didn't own it, but I had access to one and I
4 had used it.

5 Q Have you used a Sonos controller for Mac 9:26AM
6 or PC in 2011?

7 A Yes.

8 Q Is it your opinion that Sonos's music
9 queue described in the 2011 Sonos controller
10 guide -- or controller for Mac or PC product guide 9:27AM
11 reflects how a person of ordinary skill in the art
12 would ordinarily or customarily understand the term
13 "playback queue"?

14 A Yes.

15 Q Let's look at Paragraph 51 of your 9:27AM
16 declaration.

17 A I'm sorry, 51 you said?

18 Q Yes, 51.

19 Here you opine that other industry
20 materials provide a similar description of a 9:27AM
21 playback queue and then you cite the Exhibit F and
22 Exhibit B.

23 Do you see that?

24 A Yes.

25 Q Exhibit F is a copy of Windows Vista 9:27AM

1 manual; correct? 9:27AM

2 A It's not the manual. It's David Pogue's

3 book that he called it "The Missing Manual." It's

4 kind of a behind-the-scenes explanation of Windows

5 Vista. 9:28AM

6 Q Got it. Have you used Windows Vista

7 before?

8 A Yes, I have.

9 Q Have you used Windows Media Center for

10 Windows Vista before? 9:28AM

11 A Yes, I have.

12 Q When was the last time you used Windows

13 Media Center for Windows Vista?

14 A When it first came out, when Windows Vista

15 first came out, I remember playing with it. But I 9:28AM

16 don't remember -- I don't know the date of that.

17 Q As indicated in Paragraph 51 of your

18 declaration, it is your opinion that the music queue

19 described in the Windows Vista document, Exhibit F,

20 reflects how a person of ordinary skill in the art 9:28AM

21 would ordinarily or customarily understand the term

22 "playback queue"; correct?

23 A Yes, that's correct.

24 Q Have you looked at any other industry

25 materials describing a playback queue other than the 9:29AM

1 materials cited in your declaration? 9:29AM

2 A Not specifically for this purpose. I'm sure
3 I have over the years, but not specifically for
4 preparing for this.

5 Q Are there any other materials that come to 9:29AM
6 mind that describe a playback queue?

7 A I don't have any specific ones to mention
8 off the top of my head right now.

9 Q Generally speaking, you have an
10 understanding of what a term of art is; correct? 9:29AM

11 A Yes.

12 Q What is your understanding?

13 A It's --

14 MR. HEFAZI: Objection, calls for a legal
15 conclusion. 9:30AM

16 THE WITNESS: My understanding is that it
17 is a term as it would be understood by a person of
18 ordinary skill in the art.

19 BY MR. PAK:

20 Q Is "playlist" a term of art? 9:30AM

21 A Yes.

22 Q Before Google engaged you as an expert for
23 this matter, did you have an understanding of what
24 playlist means?

25 A Yes, I did. 9:30AM

1 Q What was that understanding? 9:30AM

2 A That it is an ordered collection of songs --
3 it could be other material, but I'm using songs as an
4 example -- that a user puts together based on some
5 criteria that they've decided, such as genre or an 9:30AM
6 artist or other criteria.

7 Q How are songs added to a playlist?

8 A It --

9 MR. HEFAZI: Objection to form.

10 THE WITNESS: There is a delay, and that's 9:31AM
11 why I'm --

12 MR. HEFAZI: That's fine. Just take a
13 pause and let the question finish.

14 (Discussion off the record.)

15 (Requested testimony read by the reporter.) 9:31AM

16 MR. HEFAZI: Same objection.

17 THE WITNESS: It depends a little bit on
18 the service, I think. But in general, a user
19 selects a song from either the music library or the
20 larger collection of songs that somebody like 9:32AM
21 Spotify would offer and drags it into a column that
22 contains playlists or right clicks and adds it.

23 BY MR. PAK:

24 Q Does a user have to add the songs to a
25 playlist or can the music service itself add -- 9:32AM

1 create its own playlist without the user adding 9:32AM
2 songs to a playlist?

3 A Yes, both of those are possible. It could
4 be a premade playlist, it could be a collaborative
5 playlist that multiple users contributed to or an 9:32AM
6 individual user.

7 Q So a user does not have to manually add
8 songs to a playlist; correct?

9 A It's just one option.

10 Q How is a playlist stored? 9:32AM

11 A Again, it depends a little bit on the
12 situation. For a streaming music service, a playlist
13 is stored as a list of uniform resource locators.

14 If the songs are on your hard drive, then
15 it's a list of other types of links to memory 9:33AM
16 locations on your hard drive. So it depends on the
17 situation.

18 Q So is it your opinion that songs in a
19 playlist don't have to be stored in its data form?

20 MR. HEFAZI: Objection, vague and 9:33AM
21 ambiguous.

22 THE WITNESS: Can you explain what you
23 mean by "data form"?

24 BY MR. PAK:

25 Q Yes. I don't know what the best way to 9:33AM

1 put this is. But if you have a playlist with two 9:33AM
2 songs, and say they are MP3 files, each being
3 7 megabytes long, does a playlist contain those
4 songs in the MP3 file form, the 7-megabyte form, or
5 is it stored in some other manner, like you said a 9:34AM
6 URL, for example?

7 MR. HEFAZI: Objection, vague,
8 hypothetical.

9 THE WITNESS: I think both of those are
10 possible. 9:34AM

11 BY MR. PAK:

12 Q So it's possible that songs included in a
13 playlist can be stored in either its data form, its
14 MP3 file form, or as a resource locator or a URL
15 form; correct? 9:34AM

16 A Yes.

17 Q Does a playlist have to have a plurality
18 of multimedia items or songs?

19 A Not necessarily. You can create a playlist
20 and call it something and it may start empty and then 9:35AM
21 you start putting songs in it.

22 Q So is it your opinion that you can have a
23 playlist that has only one song?

24 A Yes.

25 Q Let's look at Paragraph 47 of your 9:35AM

1 declaration. 9:35AM

2 Here you opine that "a person of skill in
3 the art would have understood that a playback queue
4 is an ordered list of multimedia items that is
5 selected by the user for playback." 9:35AM

6 Do you see that?

7 A Yes.

8 Q What is a multimedia item?

9 A In the context of what we're talking here
10 today, it's a song, a video, a link to a song or 9:36AM
11 video.

12 It could also be multimedia as defined as
13 other things like text as well, but I think we're
14 talking about just songs and videos here.

15 Q When you say "a link to a song or video," 9:36AM
16 does that mean that a playback queue doesn't have to
17 contain the actual song or video in its data form?

18 A Yes, just as I answered it for playlist, I
19 think that's right.

20 Q Does an entire album amount to a 9:36AM
21 multimedia item?

22 MR. HEFAZI: Objection, vague.

23 THE WITNESS: I think if you ask different
24 people, they will give you a different answer. It
25 could. 9:37AM

1 BY MR. PAK: 9:37AM

2 Q Does a playlist amount to a multimedia

3 item?

4 MR. HEFAZI: Same objection, vague.

5 THE WITNESS: It's the same answer as 9:37AM

6 album. I would consider it the same, yes.

7 BY MR. PAK:

8 Q So depending on -- you know, depending on

9 who you ask, you're saying a playlist could be a

10 multimedia item or it might not be a multimedia 9:37AM

11 item?

12 A In my experience in the art, there are those

13 that say that items are individual smaller parts. But

14 I don't think there is a general definition of item.

15 Q Does an internet radio station amount to a 9:38AM

16 multimedia item?

17 MR. HEFAZI: Objection, incomplete

18 hypothetical.

19 THE WITNESS: I would say that the

20 internet radio station is serving multimedia items; 9:38AM

21 but the station itself, I would say no.

22 BY MR. PAK:

23 Q Have you used Pandora before?

24 A Yes, I have.

25 Q Is it possible to add a Pandora radio 9:38AM

1 station to a playback queue? 9:38AM

2 MR. HEFAZI: Objection, calls for
3 speculation, incomplete hypothetical.

4 THE WITNESS: My experience with playback
5 queues has been with services that are not Pandora. 9:38AM
6 So I don't know -- I don't believe they allow that
7 in Spotify, for example, or Apple.

8 BY MR. PAK:

9 Q Okay. So does a playback queue contain
10 each multimedia item -- I take that back, yes. Let 9:39AM
11 me start over here.

12 So your definition here, it says a person
13 of ordinary skill in the art would have understood
14 the term "playback queue" to mean "ordered list of
15 multimedia items that is selected by the user for 9:39AM
16 playback. "

17 Who is the user in your construction for
18 playback here?

19 A The person that wants to experience the
20 multimedia items. 9:39AM

21 Q Can the multimedia items be -- let me
22 start over here.

23 Can the multimedia items in the ordered
24 list be selected by a user other than the user who
25 wants to experience the multimedia items? 9:40AM

1 A Yes, that's -- as we said before, it could 9:40AM
2 be by multiple users or by somebody who's curating the
3 list.

4 Q So the multimedia items in a playback
5 queue does not have to be selected by the user who 9:40AM
6 wants to experience multimedia items; correct?

7 MR. HEFAZI: Objection, vague and
8 ambiguous.

9 THE WITNESS: I don't think we're
10 construing the word "user" anywhere here. I think a 9:40AM
11 user could be a user that wants to listen or create
12 or both.

13 BY MR. PAK:

14 Q In your construction you used the term
15 "the user" instead of "a user." 9:41AM

16 Is there a particular reason why you use
17 "the" instead of "a"?

18 A I would say it's because of the word of
19 "playback." I was looking at this from the point of
20 view of a consumer of a playback queue. 9:41AM

21 Q But is it your opinion that your
22 construction for a playback queue doesn't limit the
23 ordered list of multimedia items to be selected by a
24 particular user; is that correct?

25 MR. HEFAZI: Objection, asked and 9:41AM

1 answered. 9:41AM

2 THE WITNESS: Yes. I also want to

3 clarify, this is not my construction, this report is

4 about the opinions about a construction that was

5 presented to me. 9:41AM

6 BY MR. PAK:

7 Q Understood.

8 What is a list in this proposed

9 construction?

10 MR. HEFAZI: Objection, vague. 9:42AM

11 THE WITNESS: It's a sequence of -- it's

12 an ordered list. So it's a sequence of items that

13 have been given some order in which to appear.

14 BY MR. PAK:

15 Q Is a list a single data structure? 9:42AM

16 A It can be. There are multiple ways to

17 implement lists.

18 Q Can a list be -- can a list comprise

19 multiple data structures?

20 A It can, although my computer science 9:42AM

21 colleagues would probably call that an array or

22 something else. But yes.

23 Q So is it your opinion that a playback

24 queue contains an ordered list of multimedia items

25 in a single or multiple data structure set? 9:43AM

1 A I didn't really look at this from the point 9:43AM
2 of view of data structures, so I didn't opine on how
3 it's stored, just on the term -- on the meaning of the
4 term. I would have to think about that a little bit
5 more if we're giving an opinion. 9:43AM

6 Q Okay. Again, this construction here you
7 propose that -- you say -- you did not propose, but
8 you did opine that "a person of ordinary skill in
9 the art would have understood that a playback queue
10 is an ordered list of multimedia items that is 9:44AM
11 selected by the user for playback."

12 If it's not your proposed construction, is
13 there something you would change?

14 MR. HEFAZI: Objection, mischaracterizes
15 testimony. 9:44AM

16 THE WITNESS: I think the whole point of
17 my declaration in this part is that I agree with
18 this construction.

19 BY MR. PAK:

20 Q Okay. What is an ordered list? 9:44AM

21 A I think that was my previous answer, but
22 it's a list of items that have been given an order in
23 which to appear.

24 Q Do the multimedia items in the order list
25 have to be arranged in a particular manner? 9:45AM

1 MR. HEFAZI: Objection, vague, 9:45AM
2 hypothetical.

3 THE WITNESS: In a particular --

4 MR. HEFAZI: Calls for speculation.

5 THE WITNESS: I'm not sure what you mean 9:45AM
6 "in a particular manner."

7 BY MR. PAK:

8 Q Asked differently, does it matter how the
9 multimedia items in a list are arranged to amount to
10 an ordered list? 9:45AM

11 MR. HEFAZI: Same objection.

12 THE WITNESS: If by "arranged" you mean
13 how they are presented to a user, then it matters.
14 How they are stored is a different matter.

15 But the ordered list is a list of items 9:45AM
16 that needs to appear in the order that they were --
17 that it was created.

18 BY MR. PAK:

19 Q If a user can modify the ordering of the
20 multimedia in the playback queue, is that still an 9:46AM
21 ordered list?

22 A Yes. The very act of modifying the order
23 implies that you're starting with an ordered list.

24 Q What is the significance of the order
25 requirement for a playback queue? 9:46AM

1 MR. HEFAZI: Objection, vague and 9:46AM
2 ambiguous.

3 THE WITNESS: I guess it's part of the
4 experience that the streaming service is trying to
5 create. For example, when a DJ puts some songs on a 9:46AM
6 radio station in a certain order, they have a
7 particular artistic intent in that -- in the way
8 that they put it together.

9 So that is one reason for an ordered list.

10 BY MR. PAK: 9:46AM

11 Q If a user can shuffle songs in a playback
12 queue, is that still an ordered list?

13 A Your definition of "shuffle" is to move them
14 around or --

15 Q Yes, move them around randomly. 9:47AM

16 A So it starts as an ordered list and then
17 it's randomized, is that --

18 Q Do you know what shuffle mode is?

19 A Yes. Okay. You mean -- okay.

20 That's kind of a tricky one because it is 9:47AM
21 an ordered list that still appears in that form to
22 the user. In other words, when you put it in
23 shuffle mode, it doesn't necessarily change the
24 order that it appears, it just changes the order
25 that they play in. 9:48AM

1 So I'm not sure how to answer that. It 9:48AM
2 could be both ways. It could be or it could not be
3 depending on how you look at it. I haven't thought
4 of that before that way.

5 Q Is it your opinion that if a user can 9:48AM
6 shuffle songs in a playback queue, then that could
7 amount to an order list?

8 A Once the shuffle is completed, now we have
9 an ordered list that's about to play. Presumably it's
10 not continuously shuffling. 9:49AM

11 So there is a shuffle that happens, but
12 now there is a sequence of songs that's about to
13 play, so that's an ordered list.

14 Q Are there any differences between a
15 playlist and a playback queue? 9:49AM

16 A Yes. I would say that the -- there are
17 similar -- I think the main difference is that a
18 playlist can be saved for later use so that you can go
19 through it in that same order again and again.

20 But playback queue is more ephemeral and 9:49AM
21 it's done, it's not normally saved. Once it goes
22 through its queue and you have a sequence of songs,
23 but you're not saving it. If you save it, I would
24 say that you're creating a playlist.

25 Q Are there any other instances? 9:49AM

1 MR. HEFAZI: Objection, vague and 9:49AM
2 ambiguous, calls for speculation.
3 THE WITNESS: I cannot think of any other
4 differences, no.
5 BY MR. PAK: 9:50AM
6 Q Can a playback queue include a playlist?
7 A I have not seen it implemented that way, but
8 I don't know of a technical reason that it cannot.
9 MR. HEFAZI: Late objection, sorry. Late
10 objection, vague and ambiguous and calls for 9:50AM
11 speculation.
12 BY MR. PAK:
13 Q Can a playlist include a playback queue?
14 MR. HEFAZI: Same objection.
15 THE WITNESS: I have not seen it 9:50AM
16 implemented that way, no.
17 BY MR. PAK:
18 Q I'll introduce another exhibit here. Bear
19 with me.
20 (Exhibit 2 was marked for identification.) 9:50AM
21 BY MR. PAK:
22 Q Let me know if you can see it. I just
23 marked it as Exhibit 2.
24 A Yes.
25 Q You recognize this document; right? 9:51AM

1 A Yes, it's the '615 patent. 9:51AM

2 Q Let's go to Page 27. I want to look at
3 Claim 13.

4	A	Okay.
---	---	-------

5	Q	In Column 20 do you see Limitation A?	9:51AM
---	---	---------------------------------------	--------

6	A	I do.
---	---	-------

7 Q Limitation A recites in part, "causing one
8 or more first cloud servers to add multimedia
9 content to a local playback queue on the particular
10 playback device." 9:52AM

11	Do you see that?
----	------------------

12	A	Yes.
----	---	------

13 Q Does this claim limitation require causing
14 one or more first cloud servers to add multimedia
15 content to an existing local playback queue or a new 9:52AM
16 local playback queue?

17 MR. HEFAZI: Objection, outside the scope.

18 THE WITNESS: I don't see -- I don't think
19 it speaks to that. Whether it's existing or not,
20 it's a local playback queue. I don't think it says 9:52AM
21 either way.

22 BY MR. PAK:

23 Q So is it your opinion that this claim
24 limitation does not require adding multimedia
25 content to an existing local playback queue? 9:53AM

1 MR. HEFAZI: Objection, outside the scope 9:53AM
2 of the report, calls for speculation.

3 THE WITNESS: It's my opinion that it does
4 not specify. It just says, "a local playback
5 queue." It doesn't say anything about existing or 9:53AM
6 new.

7 MR. PAK: Just give me one more second to
8 introduce a new exhibit here.

9 (Exhibit 3 was marked for identification.)

10 BY MR. PAK: 10:33AM

11 Q I just marked a new exhibit as Exhibit 3.
12 Let me know if you can see it.

13 A Yes, I see it.

14 Q Do you recognize this document?

15 A Yes, it's the Sony HDD manual. 9:54AM

16 Q Would you please read the first two
17 sentences?

18 A "The HDD audio player automatically creates
19 playlists such as a list of newly transferred tracks
20 and a list of frequently played tracks. You can also 9:54AM
21 play playlists you have created with your favorite
22 tracks."

23 Q So as you said before, a playlist does not
24 have to be created by a user -- let me scratch that
25 one. 9:55AM

1 So you said before a playlist does not 9:55AM
2 have to be created by a user; correct?

3 MR. HEFAZI: Objection, vague and
4 ambiguous, calls for speculation.

5 THE WITNESS: I think what we said is a 9:55AM
6 playlist has to be created by someone. Whether it's
7 the user that's going to listen to it or not is not
8 required.

9 BY MR. PAK:

10 Q A playlist can be automatically created; 9:55AM
11 correct?

12 A Yes.

13 Q Do you see the enumerated instructions on
14 how to play tracks in a playlist?

15 A The instructions below? 9:56AM

16 Q Yes.

17 A Yes.

18 Q Number 3 says, "Tap a track. Playback
19 starts."

20 Do you see that? 9:56AM

21 A Yes.

22 Q When a user taps a track in a playlist to
23 start playback of that track, does that track get
24 added to the playback queue?

25 A It can. I think it depends on the 9:56AM

1 implementation or the situation. So it's possible but 9:56AM
2 not required.

3 Q Right. But for the Sony HDD audio remote,
4 when a user taps a track and playback starts, does
5 that track get added to a play queue? 9:56AM

6 A Yes, I believe it does.

7 MR. PAK: We've been going almost an hour.
8 How about we take a break here, short break, maybe
9 ten minutes.

10 THE WITNESS: Okay. 9:57AM

11 MR. PAK: So let's come back at -- I'm on
12 central time.

13 MR. HEFAZI: How about 10:10 Pacific?

14 MR. PAK: That sounds good. Thanks.

15 VIDEOGRAPHER: This marks the end of Media 9:57AM
16 Number 1. Going off the record at 9:57 a.m.

17 (Recess taken.)

18 VIDEOGRAPHER: This marks the beginning of
19 Media Number 2. Going back on the record at
20 10:12 a.m. 10:11AM

21 BY MR. PAK:

22 Q Dr. K, I would like to introduce a new
23 exhibit here marked as Exhibit 4. Let me know if
24 you see it.

25 (Exhibit 4 was marked for identification.) 10:12AM

1 THE WITNESS: Yes. 10:12AM

2 BY MR. PAK:

3 Q You recognize this document; correct?

4 A Yes.

5 Q In this exhibit there is an annotated UI 10:12AM

6 screen that shows a play queue.

7 Do you see that?

8 A I do.

9 Q What does the box labeled as 1 represent?

10 A It is a handle that you can click on to be 10:12AM

11 able to move tracks up and down.

12 Q What does the box labeled as Number 2

13 represent?

14 A It represents the play queue, the order of

15 the tracks. 10:13AM

16 Q Do you see the green indicator next to the

17 track entitled "All Over the World" in the queued

18 tracks list?

19 A Yes.

20 Q What does that green indicator indicate? 10:13AM

21 A It depends on the -- in this particular

22 case, I believe it indicates that that's the track to

23 be played when you click on it. So in some of these,

24 when it has the arrow, it means it's not playing, but

25 when you click it, it starts playing. 10:13AM

1 But it could also indicate that it's the 10:14AM
2 current playing track.

3 Q Does a playback queue have to include the
4 currently playing track?

5 A I guess there is no technical requirement 10:14AM
6 for that. But I believe that everybody that
7 implements playback queues puts the currently playing
8 track in it.

9 Q So in the Sony HDD audio remote, the
10 currently playing track is included in the playback 10:14AM
11 queue; correct?

12 A Yes.

13 MR. PAK: I would like to introduce a new
14 exhibit here. I'll mark it as Exhibit 5.

15 (Exhibit 5 was marked for identification.) 10:14AM
16 BY MR. PAK:

17 Q Let me know if you see it.

18 A Not yet. There it is.

19 Q Do you recognize this document?

20 A Yes. 10:15AM

21 Q Do you see the UI screens below the
22 section that says, "Using the context menu"?

23 A I do, yes.

24 Q What does the first UI screen on the left
25 illustrate? 10:15AM

1 MR. HEFAZI: Objection, vague and 10:15AM
2 ambiguous.

3 THE WITNESS: I believe it's the queue,
4 the play queue.

5 BY MR. PAK: 10:16AM

6 Q On top it says, "Albums, Gift Songs," it
7 doesn't say play queue. So could it be tracks in an
8 album?

9 A It could, but if that album was selected,
10 then its tracks could be in the play queue; right? 10:16AM

11 Q Let's go back to the previous exhibit,
12 Exhibit 4. You see the UI screen there that shows
13 the play queue?

14 A Yes.

15 Q And that's -- the screen in Exhibit 4, do 10:16AM
16 you see that there is a play queue at the top of the
17 screen?

18 A Yes.

19 Q Okay. Now let's go back to Exhibit 5.

20 Do you see that same play queue header at 10:16AM
21 the top of the screen on the left side of the UI
22 screen?

23 A No, I don't.

24 Q Okay. So is the UI screen shown on the
25 left side in Exhibit 5, is that a play queue? 10:17AM

1 MR. HEFAZI: Objection, vague and 10:17AM
2 ambiguous, incomplete hypothetical.

3 THE WITNESS: Based on what we've said
4 before, the Sony and other players put songs that
5 are being selected for play into the play queue. 10:17AM

6 It looks like this is the list of songs in
7 that album, but then as shown in the screen on the
8 right, you can -- I think this is to show that you
9 can add things to your queue list.

10 And the intent of this menu is to show 10:17AM
11 that you can add things to your playlist. So I
12 guess I would have to revise my answer. The left is
13 not the same play queue -- not the actual play
14 queue.

15 BY MR. PAK: 10:17AM

16 Q Can you -- could you please read what the
17 manual says below the UI screens?

18 A "Tap and hold an item in a list to display
19 the context menu (1) for the selected item.

20 "You can add the selected item to the play 10:18AM
21 queue, edit the track information, et cetera.
22 Context menus differ depending on the item selected
23 from the list."

24 Q Does this mean that a user can add an
25 individual track to a playback queue? 10:18AM

1	A	Yes.	10:18AM
---	---	------	---------

2 Q Does a playback queue have to have a
3 plurality of multimedia items?

4 A I don't think that there's any requirement
5 for the number of items in the playback queue. 10:18AM

6 Q So is it your opinion that the playback
7 queue can include a single individual multimedia
8 item?

9 A It could. It would not be a very exciting
10 queue, but it could. 10:19AM

11 MR. PAK: I would like to introduce a new
12 exhibit here. I'll mark it as Exhibit 6.

13 (Exhibit 6 was marked for identification.)

14 BY MR. PAK:

15 Q Let me know when you see it. 10:19AM

16 A Yes, I see it.

17 Q Do you recognize this document?

```
18         A    Yes, it's the same manual, HDD -- Sony HDD
19 manual.
```

20	Q Do you see where it says that you can	10:19AM
21	select one from the following playback modes?	

22	A	Yes.
----	---	------

23 Q Do you see that there are four different
24 playback modes for shuffle play?

25	A	Yes.	10:20AM
----	---	------	---------

1 Q What is the third playback mode described 10:20AM
2 here?

3 A "Shuffle: Albums. Plays albums in play
4 queue in random order. The order of tracks in each
5 album does not change." 10:20AM

6 Q And in this third playback mode, would a
7 playback queue still be an ordered list?

8 A A playback -- well, the order of tracks in
9 the album doesn't change, so that's an ordered list,
10 right? Yes. 10:20AM

11 Q It looks like there is a second playback
12 mode described here. It says, "Shuffle: Tracks,
13 plays tracks in play queue in random order."

14 Do you see that?

15 A Yes. 10:21AM

16 Q In the second playback mode, is a playback
17 queue an ordered list?

18 MR. HEFAZI: Objection, asked and
19 answered.

20 THE WITNESS: The playback queue is an 10:21AM
21 ordered list, yes. The tracks are playing in random
22 order but the queue is an ordered list.

23 BY MR. PAK:

24 Q Okay. With respect to the third playback
25 mode here, we are talking about shuffle albums 10:21AM

1 again, how is it possible to shuffle multiple albums 10:21AM
2 in a playback queue in random order without changing
3 the order of the individual tracks in each album?

4 A The album itself is identified as an item
5 and it has subitems in it, I guess they are called the 10:22AM
6 tracks. I think that's what you're asking. So what
7 is being shuffled is the album title.

8 Once that is ordered to play, then the
9 tracks play in order in that album.

10 Q So in that scenario, is an album a 10:22AM
11 multimedia album?

12 MR. HEFAZI: Objection, vague and
13 ambiguous.

14 THE WITNESS: I think we talked about this
15 before. It kind of depends on who you ask. It can 10:22AM
16 be, yes.

17 BY MR. PAK:

18 Q I would like to introduce another exhibit
19 here. I will mark it as Exhibit 7. Let me know
20 when you see it. 10:23AM

21 (Exhibit 7 was marked for identification.)

22 THE WITNESS: One second. Yes.

23 BY MR. PAK:

24 Q Do you recognize this document?

25 A Yes, it's from the same manual, from Sony. 10:23AM

1 Q Do you know what the TuneIn music service 10:23AM
2 is?

3 A Yes, I do.

4 Q Have you ever used TuneIn?

5 A Yes. 10:23AM

6 Q Okay. In this document, there is some
7 instructions here. It says, "The TuneIn music
8 services may not be available depending on your
9 country or region."

10 It says 1, 2, 3. One says, "Tap (Music 10:24AM
11 Services) on the home screen.

12 Two, "Tap (TuneIn)," then "select station
13 or show."

14 And 3, "Tap the items you like" to -- I'm
15 sorry, 3 says, "Tap the items you like and keep 10:24AM
16 selecting the item following the instructions that
17 appear on the display. The radio station or show
18 streaming screen appears and streaming starts."

19 Do you see that?

20 A I do. 10:24AM

21 Q So in the Sony HDD audio remote, when the
22 internet radio station is selected, such as a TuneIn
23 radio station, does that radio station get added to
24 the playback queue?

25 MR. HEFAZI: Objection, vague and 10:25AM

1 | ambiguous, calls for speculation. 10:25AM

2 THE WITNESS: When I used this device, I
3 did not try it with -- it was some years ago, I was
4 only playing songs, not radio stations, so I can't
5 say for sure.

6 BY MR. PAK:

7 Q And the Sony HDD audio remote, the
8 playback queue includes the currently playing
9 multimedia item; correct?

10 A In the menus that we saw of the screenshots, 10:25AM
11 they were not showing radio stations. I don't know if
12 that means that they are excluded or not.

13 But it's playing -- the screens that we
14 saw showed songs or albums, but I don't think they
15 speak to radio stations in those screens at least. 10:25AM

```
16         Q    Okay.  But in the Sony HDD audio remote,
17 the playback queue contains the currently playing
18 track; correct?
```

19	A	Correct.
----	---	----------

20 Q So when a user taps a TuneIn internet 10:26AM
21 radio station to stream that internet radio station,
22 you're not sure why they're not -- that track is
23 added -- that radio station gets added to the
24 playback queue; is that your opinion?

25	A	It is. The reason for that is this is a	10:26AM
----	---	---	---------

1 different kind of media. It's coming from a streaming 10:26AM
2 service -- a streaming radio service and typically
3 it's a different application.

4 It's a third-party application, not part
5 of the music player application that would be 10:26AM
6 embedded into a player like the Sony or the iPad.

7 MR. PAK: Okay. I would like to introduce
8 a new exhibit here. Just bear with me. This one is
9 a large document. It's taking a long time to load.

10 (Exhibit 8 was marked for identification.) 10:27AM

11 MR. PAK: I just marked this exhibit as
12 Exhibit 8.

13 Q Let me know when you see it on your
14 screen.

15 A I'm downloading it now. 10:27AM

16 VIDEOGRAPHER: Counsel, I think
17 Mr. Hefazi's connection is off.

18 Counsel, can you hear?

19 MR. HEFAZI: I think I went out. I'm back
20 now. Can you hear me? 10:28AM

21 VIDEOGRAPHER: Yes.

22 THE WITNESS: Okay. I have Exhibit 8,
23 which is Exhibit F.

24 BY MR. PAK:

25 Q You recognize this document; right? 10:28AM

1	A	Yes.	10:28AM
---	---	------	---------

2 Q Let's go to Page 699.

3 A "Search the Library," that one?

4 Q Yes. I would like to focus on the section
5 that says, "Playlists." 10:28AM

6	A	Okay.
---	---	-------

7 Q Can you read the first two paragraphs for
8 the record?

9	A	"A playlist is a set of songs that you've	
10		handpicked and hand-sequenced. They might have	10:28AM
11		originated on a whole bunch of different CDs, but you	
12		think they will go well together. You can read more	
13		about playlists in the media player chapter (Page 473)	
14		because guess what? Windows Vista is smart enough to	
15		make the same playlist show up in both programs. Any	10:29AM
16		playlist you create in Media Player appear in Media	
17		Center, and vice versa.	

18	"Auto Playlists are self-building,	
19	self-updating lists of songs that change as you	
20	listen, download and change ratings. These, too,	10:29AM
21	are described in Chapter 14 but unlike Media Player,	
22	Media Center comes prestocked with Auto Playlists.	
23	Here you'll find playlists of music you listen to	
24	the most, music you've listened to in the last	
25	month, music rated at four or five stars. As your	10:29AM

1 preferences and playback habits change, so do the 10:29AM
2 items in the playlist."

3 Q So this section here discloses that there
4 are two types of playlists; correct?

5 A Correct. 10:29AM

6 Q One type of playlist is a playlist that's
7 created manually by a user; correct?

8 A Correct.

9 Q Another type of playlist is an auto
10 playlist that is created without a user selecting 10:30AM
11 songs for the playlist; correct?

12 A Correct.

13 Q Let's look at the fourth paragraph in the
14 section. It says, "Click Play to play a highlighted
15 playlist immediately, or click Add to Queue to play 10:30AM
16 after whatever's currently playing."

17 Do you see that?

18 A Yes.

19 Q So this disclosure here is saying that a
20 user can add an entire playlist to a playback queue; 10:30AM
21 correct?

22 A Yes.

23 Q And the user can add the entire playlist
24 to a playback queue without having to individually
25 add each song in the playlist to the playback queue; 10:30AM

1 correct? 10:30AM

2 A Yes. That's how Vista Windows has
3 implemented it, yes.

4 Q Going back to Paragraph 47 of your
5 declaration, which is Exhibit 1. 10:31AM

6 A Sorry, I have a lot of documents open.

7 Q You say that "a playback queue is an
8 ordered list of multimedia items that is selected by
9 the user for playback."

10 Does that mean that the user has to 10:31AM
11 manually select each multimedia item in the ordered
12 list?

13 A No.

14 Q Okay. Let's go back to Exhibit 8. Let's
15 go to PDF Page 700. 10:32AM

16 Do you see the section about creating a
17 queue?

18 A Yes.

19 Q There are three bullets here. The first
20 bullet says, "An album at a time," "a song at a 10:32AM
21 time" and "a playlist at a time."

22 Right above it, it says, "You can add
23 music to your Media Center queue in any of three
24 chunks," as I just described here; correct?

25 A Correct. 10:32AM

1 Q So this disclosure here is saying that a 10:32AM
2 user can add an entire queue without manually
3 selecting each track in the playlist; correct?

4 A Yes. I believe we said that earlier as
5 well. 10:32AM

6 Q Likewise, a user can add an entire album
7 to a playback queue without manually selecting each
8 track in the album; correct?

9 A Correct.

10 Q And like we said earlier, a playback queue 10:33AM
11 can contain a single song selected by a user;
12 correct?

13 A Contain a single song in general, whether
14 it's automatically selected or not by a user, yes.

15 Q Let's look at the section where it says, 10:33AM
16 "The Music Queue."

17 Do you see that?

18 A Yes.

19 Q It says, "A queue is a waiting line," and
20 then the manual analogizes a queue to a line at the 10:33AM
21 DMV.

22 Do you see that?

23 A Yes.

24 Q A line at the DMV can be empty; correct?

25 A Correct. 10:34AM

1 Q So you could be the first one at the DMV; 10:34AM
2 correct?

3 A Correct. Well, if you're the first one,
4 it's not empty anymore. It was empty.

5 Q Does this mean that a playback queue can 10:34AM
6 be empty as well?

7 A It can. As I said before, it's not a very
8 interesting queue until you add something to it. But
9 the notion is that there is a queue that existed and
10 it's about to be filled, yes, sure. 10:34AM

11 Q Let's go to the next page, PDF Page 701.

12 A Okay.

13 Q Do you see where the manual says, "Empty
14 the queue"?

15 A I do. 10:34AM

16 Q So again, this confirms that a queue can
17 be emptied; correct?

18 A Yes.

19 MR. PAK: I want to introduce a new
20 exhibit here. Give me one second to load it. 10:35AM

21 (Exhibit 9 was marked for identification.)

22 BY MR. PAK:

23 Q I just marked the exhibit as Exhibit 9.
24 Let me know when you see that.

25 A I see it. 10:36AM

1 Q You recognize this document; correct? 10:36AM

2 A Yes. Exhibit E from my declaration.

3 Q Let's go to PDF Page 44. Can you read the
4 last sentence under "What is a music queue?"

5 A "When you add selections to a queue, you can 10:36AM
6 choose to play them now, play them next, add them to
7 the end of the queue, or play them now and clear the
8 queue of previous music selections."

9 Q So this section of the Sonos controller
10 guide describes how a user can add something to a 10:36AM
11 music queue; correct?

12 A Correct. Well, I should clarify. It says
13 what happens when you add it. I'm not sure it
14 describes the mechanism in this paragraph. But yes.

15 Q When it says that a user can clear the 10:36AM
16 queue of previous music selection, does that mean --
17 does that mean the playback queue can be empty?

18 A Play them now and clear the queue,
19 previous -- it means that the queue can be empty, I'm
20 not sure the sentence is addressing that. 10:37AM

21 I think that last part of the sentence is
22 talking about adding new items to the queue and
23 deleting the previous ones is how I read it.

24 Q What do you think it means when the manual
25 says "clear the queue of previous music selections"? 10:37AM

1 A It means there was a list of selections in 10:37AM
2 the queue and they are being cleared by the user.

3 But it's part of the "when you add
4 selections to the queue," so when you add
5 selections, you can clear the previous ones. That's 10:38AM
6 how I read that sentence.

7 Q Okay. So if there are two songs in a
8 playback queue and a user clears one of the songs in
9 the playback queue, there will be one song in the
10 playback queue; correct? 10:38AM

11 A Correct.

12 Q What if there was only one song in the
13 playback queue and the user clears that song in the
14 playback queue, would there still be a playback
15 queue? 10:38AM

16 A There would, it just wouldn't have any songs
17 at the moment in it.

18 Q It would just be empty; right?

19 A Yes.

20 Q Let's go to PDF Page 66. It says, 10:38AM
21 "Napster Automix."

22 A Yes.

23 Q Are you familiar with the Napster music
24 service?

25 A Are you trying to get me into legal trouble? 10:39AM

1 Sorry. 10:39AM

2 Yes, I am.

3 Q Please read the first two sentences there.

4 A "You can create an instant playlist based on
5 an artist or a track selection. Napster will select 10:39AM
6 40 similar tracks based on your selection and add the
7 tracks to your music queue."

8 Q There's some instructions here. On
9 Number 4, it says, "To create an automix for a
10 track - select a track, right-click, and select 10:39AM
11 Create Automix."

12 Do you see that?

13 A Yes.

14 Q So is it your understanding that Napster's
15 Automix is a type of playlist created based on a 10:40AM
16 user's selection of either an artist or individual
17 track?

18 MR. HEFAZI: Objection, vague.

19 THE WITNESS: It's an automatically
20 created mix. I don't know the criteria that they 10:40AM
21 use. I don't think they are listed here.

22 The ones you mentioned could be part of
23 them. I guess it says it on the first line, so yes.

24 BY MR. PAK:

25 Q Okay. Let me ask that again then. 10:40AM

1	Is it your understanding that Napster	10:40AM
2	Automix is a type of playlist created based on a	
3	user's selection of either an artist or an	
4	individual track?	

5	A	Yes.	10:40AM
---	---	------	---------

6 Q The instructions above it starting with
7 Number 1, it says, "From the Music Services tab,
8 search for a Napster artist that you would like to
9 listen to."

10	Number 2, "Select Artist Automix."	10:41AM
----	------------------------------------	---------

```
11         Number 3, it says, "Right-click and select
12         one of the following:
```

```
13         "Play now."
```

```
14         "Add to Queue to add it to the end of your
15 music queue," or                                     10:41AM
```

```
16         "Play Now and Replace Queue."
```

17	Do you see that?
----	------------------

18	A I do.
----	---------

19	Q	So the Sonos controller guide here teaches	
20		that entire playlist containing a plurality of	10:41AM
21		tracks can be added to a playback queue without the	
22		user manually selecting each track in the playlist;	
23		correct?	

24	A	Yes.
----	---	------

25	Q	And below that there is a section on	10:41AM
----	---	--------------------------------------	---------

1 Napster Radio. 10:41AM
2 Do you see that?
3 A I do.
4 Q Do you know what Napster Radio is?
5 A I have a good idea. I don't know 10:42AM
6 specifically Napster Radio, but I suspect it's similar
7 to other internet radio.
8 Q So it's an internet radio station;
9 correct?
10 A I believe so. I've never used it, so I 10:42AM
11 don't know for sure.
12 Q What does the section about Napster Radio
13 disclose?
14 MR. HEFAZI: Objection, vague and
15 ambiguous. 10:42AM
16 THE WITNESS: It discloses that you can
17 play a radio station from Napster in one of the
18 Sonos zones.
19 BY MR. PAK:
20 Q Do you see the instruction there where it 10:42AM
21 says, "Add to Queue"?
22 A Yes.
23 Q So the Sonos controller guide discloses
24 that a user can select an internet radio station in
25 Napster and add it to a playback queue; correct? 10:43AM

1	A	Correct.	10:43AM
---	---	----------	---------

2 Q Now I would like to go back to Exhibit 2,
3 which is the '615 patent.

4	A	Exhibit 2, okay.
---	---	------------------

5 Q I would like you to look at Claim 13 again 10:43AM
6 on Page 27.

7	A	Okay.
---	---	-------

8 Q And we're looking at the same limitation,
9 Limitation A in Column 20.

10 It says, "one or more resource locators 10:43AM
11 corresponding to respective locations of the
12 multimedia content at one or more second cloud
13 servers on the streaming content service."

14	Do you see that?
----	------------------

15 A Yes. Let me just read the whole thing so I 10:44AM
16 have the context.

17	Q	Sure.
----	---	-------

18 A Okay. Yes, I see it.

19	Q	What does the term "corresponding to" mean	
20		in this claim limitation?	10:44AM

21 MR. HEFAZI: Objection, vague, ambiguous,
22 outside the scope of his report.

23 THE WITNESS: I think it's a word that
24 describes how a URL works. It points to a location
25 of an internet resource, in this case multimedia 10:44AM

1 content. 10:44AM

2 BY MR. PAK:

3 Q Does the term "corresponding to" -- let me
4 scratch that.

5 Is the term "corresponding to" synonymous 10:45AM
6 with "associated with" in this context?

7 MR. HEFAZI: Objection, vague and
8 ambiguous, calls for speculation.

9 THE WITNESS: I suppose. I think -- I
10 don't know. I for some reason think that 10:45AM
11 "corresponding" is a stronger term that is the exact
12 correspondence. "Associated with" might be weaker.

13 But I don't know -- I guess they are
14 equivalent. I don't have a strong opinion on that.

15 BY MR. PAK: 10:45AM

16 Q Is the term "corresponding to" synonymous
17 with the term "related to" in the context of this
18 claim?

19 MR. HEFAZI: Objection, vague and
20 ambiguous, calls for speculation. 10:46AM

21 THE WITNESS: I think we're getting into
22 that thesaurus category now. Sure, yes.

23 BY MR. PAK:

24 Q Okay. Let's go back to your declaration,
25 which is Exhibit 1. And let's look at Paragraph 56. 10:46AM

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1	A	Okay.	10:46AM
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2 Q Would you please read the first sentence
3 of that paragraph.

4 A "I agree with Google's proposed construction
5 that the term 'resource locator' means 'address of a 10:46AM
6 resource on the Internet' based on how a POSITA would
7 understand the term in view of the intrinsic and
8 extrinsic record. In contrast, Sonos proposes a
9 'plain and ordinary meaning' construction, but does
10 not articulate what it believes is the plain and 10:47AM
11 ordinary meaning of the term 'resource locator' or how
12 it differs from Google's proposed construction."

13 Q Let's skip to Paragraph 57 of your
14 declaration.

15	A	Okay.	10:47AM
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16 Q Would you please read the last sentence in
17 that paragraph.

18 A "Indeed, in my experience, the term
19 'resource locator' is often used in the art as
20 shorthand for the phrase 'Uniform Resource Locator' or 10:47AM
21 URL."

22 Q So here you didn't cite to anything from
23 your experience to draw this conclusion.

24 What experience are you relying on to

25 conclude that a resource locator is often used in 10:48AM

1 the art as shorthand for the phrase "Uniform 10:48AM
2 Resource Locator" or URL?

3 A This is from my experience at USC. Starting
4 around 1996, I was part of a team that started the
5 first national multimedia center in the U.S. as part 10:48AM
6 of a research center.

7 One of the kind of branches of research in
8 that had to do with early internet-related
9 technologies. We had students that were working on
10 projects. 10:48AM

11 So I'm basing it on being around people
12 that were programming HTML code, among other things,
13 and talking about resource locators and other URIs.

14 Q So a URL is a type of resource locator in
15 your opinion; correct? 10:49AM

16 A No, a URL is a resource locator. It's a
17 type of --

18 Q It is --

19 A -- indicator. It's a type of URI.

20 Q So when you hear the term "research 10:49AM
21 locator," it's your opinion that that term is
22 synonymous with "URL"?

23 A Yes.

24 Q So in the context of the '615 patent, it
25 is your opinion that a resource locator must be a 10:49AM

1 URL; correct? 10:49AM

2 A It is. In fact, I believe almost everywhere
3 that they talk about resource locator, the -- it says
4 "universal" in front of it with the exception of one
5 of the claims, I believe. 10:50AM

6 Q What is a URL?

7 A A URL is a string of text that uniquely
8 points to an internet resource.

9 Q Are there different types of URLs?

10 A There are -- the most -- the most common one 10:50AM
11 is based on the HTTP protocol. I'm trying to think of
12 other types of URLs.

13 I guess FTP would be a different type of
14 URL, it provides an identification, location and
15 means to retrieve, which are required for a URL. 10:51AM

16 Q Does the term "resource locator" recited
17 in the '615 patent have to be a specific type of URL
18 or can it be any type of URL?

19 A I think as long as it --

20 MR. HEFAZI: Objection, vague and 10:51AM
21 ambiguous.

22 THE WITNESS: As long as it follows the
23 definition of a URL, it can be any type of URL.

24 BY MR. PAK:

25 Q Can you think of any type of URL that 10:51AM

1 would not be an address of a resource on the 10:51AM
2 internet?

3 A No. There are URIs. So we should think of
4 this -- URI, Universal Resource Indicators, can
5 contain other types of links. One type of URI is a 10:52AM
6 URL, which must contain the address.

7 But there are other types like name, ISBN
8 numbers of books and things like that that are
9 descriptive of the item but do not provide the
10 location necessarily. 10:52AM

11 Q Are there any types of URLs that do not
12 provide the location?

13 A No. That would be contrary to the
14 definition of a URL.

15 Q Do you know what a PURL is, which stands 10:52AM
16 for persistent uniform resource locator?

17 A I have heard the term, yes.

18 Q Would you please describe what a
19 persistent URL is?

20 A To the best of my recollection, I should -- 10:53AM
21 so a URL, first, points to an internet resource but
22 that internet resource may not be persistent. For
23 example, if you have a URL that points to a site that
24 is Super Bowl champions, it always points to that
25 site, but the content in that site changes. 10:53AM

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1 I believe that a PURL points to a site 10:53AM
2 that does not change.

3 Q So is it your opinion that a persistent
4 URL is a type of URL?

5 A Yes. 10:53AM

6 MR. PAK: I would like to introduce a new
7 exhibit marked as Exhibit 10. Let me know when you
8 see it.

9 (Exhibit 10 was marked for identification.)

10 THE WITNESS: Okay. 10:54AM

11 BY MR. PAK:

12 Q Do you happen to recognize this document?

13 A I mean, it's from the Internet Archive. But
14 I do not recognize it, no.

15 Q Okay. Well, I'll represent to you that 10:54AM
16 it's a published article I found on the internet
17 entitled "Introduction to Persistent Uniform
18 Resource Locators." It's authored by the developers
19 of the PURL concept at the Online Computer Library
20 Center. 10:54AM

21 Do you see that this published article was
22 captured on the Wayback Machine on December 13th,
23 2011?

24 MR. HEFAZI: Objection, lacks foundation.

25 THE WITNESS: Help me where the date is. 10:55AM

1 I don't see the date. 10:55AM

2 BY MR. PAK:

3 Q Do you see the header?

4 A Oh, yes. I see it.

5 Q Okay. Let's look at the second paragraph 10:55AM
6 under "Today's solution: Persistent URLs."

7 Could you please read the second paragraph
8 under that header?

9 A "Functionally, a PURL is a URL. However,
10 instead of pointing directly to the location of an 10:55AM
11 internet resource, a PURL points to an intermediate
12 resolution service. The PURL Resolution Service
13 associates the PURL with the actual URL and returns
14 that URL to the client. The client can then complete
15 the URL transaction in a normal fashion. In Web 10:56AM
16 parlance, this is a standard Hypertext Transfer
17 Protocol redirect."

18 Q So is a PURL an address of a resource on
19 the internet?

20 A A PURL points to an address which is the URL 10:56AM
21 is what this says.

22 Q So does that mean a PURL is not an address
23 of a resource on the internet?

24 A The PURL does not stand on its own. It
25 needs a URL to point to. So it's -- I think of it 10:56AM

1 more as a tool, an intermediate service to assist 10:56AM
2 with, as they call it, redirect to different web
3 pages.

4 So, for example, when you type in, I don't
5 know, Lakers.com, it might take you to 10:57AM
6 Lakers.MBA.com, which is the original URL. The PURL
7 would be the Lakers.com.

8 Q So is it your opinion that a PURL is not
9 an address of a resource found on the internet?

10 MR. HEFAZI: Objection, asked and answered 10:57AM
11 already.

12 THE WITNESS: Because of the fact that it
13 doesn't stand on its own and it needs a URL, I would
14 say no.

15 BY MR. PAK: 10:57AM

16 Q So it's not an address to a resource on
17 the internet because it doesn't point directly to an
18 address of a resource on the internet; correct?

19 MR. HEFAZI: Objection, mischaracterizes
20 testimony. 10:58AM

21 THE WITNESS: No, it does point to an
22 address. It does not point to an internet resource
23 directly.

24 BY MR. PAK:

25 Q Let's go over that again. 10:58AM

1 The document says, "instead of pointing 10:58AM
2 directly to the location of an Internet resource, a
3 PURL points to an intermediate resolution service."

4 Do you see that?

5 MR. HEFAZI: Counsel, where are you 10:59AM
6 looking?

7 MR. PAK: I'm looking at the exhibit, the
8 paragraph that -- the paragraph that Dr. K read, the
9 second paragraph under "Today's solution."

10 MR. HEFAZI: Okay. 10:59AM

11 BY MR. PAK:

12 Q So again, Dr. K, this document says,
13 "However, instead of pointing directly to the
14 location of an internet resource, a PURL points to
15 an intermediate resolution service." 10:59AM

16 Do you see that?

17 A Yes.

18 Q Is it your opinion that a PURL is not an
19 address of a resource on the internet because it
20 doesn't point directly to an address of a resource 10:59AM
21 on the internet as this document says?

22 A Yes.

23 MR. HEFAZI: Objection, vague and
24 ambiguous, and mischaracterizes the document.

25

1 BY MR. PAK: 11:00AM

2 Q Okay. So is it your opinion that the term
3 resource locator exclude certain types of URLs such
4 as a PURL?

5 A In the context of what we're talking about 11:00AM
6 in the patent, yes, it is my opinion that a PURL is
7 not a resource locator. It wouldn't point directly to
8 a multimedia content item.

9 Q Let's go back to Paragraph 56 of your
10 declaration. 11:00AM

11 A Okay.

12 Q Here you agree with Google's proposed
13 construction that a resource locator is an address
14 of a resource on the internet; correct?

15 A Correct. 11:01AM

16 Q What is a resource?

17 A A resource on the internet I presume you
18 mean?

19 Q Yes. In the context of the term of
20 "resource on the internet," what does "resource" 11:01AM
21 mean?

22 A It's a wide variety of items that can be on
23 the internet. It can be a song, a video, a book, a
24 movie. It's any kind of content that -- it could also
25 be a dictionary, any kind of content that is found on 11:01AM

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1 the internet that has an address is a resource. 11:01AM

2 Q Okay. In an example where a song is a
3 resource on the internet, what is the resource
4 locator?

5 A It is the URL that points to the Web address 11:02AM
6 of the location of the song.

7 MR. PAK: I would like to introduce a new
8 exhibit here.

9 (Exhibit 11 was marked for identification.)

10 MR. PAK: I will mark this as Exhibit 11. 11:02AM

11 Q Let me know when you see it.

12 A Yes.

13 Q You recognize this document; correct?

14 A I do.

15 Q What is this document? 11:03AM

16 A It's the exhibit from my -- Exhibit G from
17 my declaration. It's part of the Merriam Webster --
18 it's a snip from the Merriam Webster dictionary.

19 Q Do you know when these definitions of
20 "resource locator" and "URL" were published online? 11:03AM

21 A I do not.

22 Q Did you print these definitions yourself?

23 A For my declaration, yes, I did.

24 Q Do you know when these definitions were
25 printed? 11:03AM

1 A I'm sorry, printed by me? 11:03AM

2 Q Yes, printed by you.

3 A So I did everything electronically without
4 printing except this morning when I printed a copy of
5 my report. 11:04AM

6 Q Right. So the header of Exhibit 11 here
7 has a February 11th, 2022 date.

8 Is that when this Exhibit G was printed
9 for your declaration?

10	A I believe that is the date that my	11:04AM
11	declaration was submitted. So that's probably the	
12	reason for that date.	

13 Q Did you conduct a search for the
14 definitions of "resource locator" and "URL" in this
15 Merriam Webster online dictionary? 11:04AM

16 A No, I conducted a search for "resource
17 locator" because I was unfamiliar with the term on its
18 own without the word "universal" or "uniform" ahead of
19 it. And what I found was that those were the only two
20 choices. 11:05AM

21 Q Let's skip to Paragraph 61 of your
22 declaration. Could you please read the first
23 sentence?

24 A "The term 'resource locator' appears in the

25 '615 patent specification only as part of the larger 11:05AM

1 phrase 'uniform resource locator (URL)', which the 11:05AM
2 patent describes as 'specifying an address' to an
3 audio track in the cloud."

4 Q Then you cite to passages in the '615
5 patent, for example, you cite to Column 11, Row 65 11:05AM
6 through Column 12, Row 3; correct?

7 A Correct.

8 Q And that passage says, "For example, zone
9 player 602 may contain a uniform resource locator
10 (URL) that specifies an address to a particular 11:06AM
11 audio track in the cloud. Using the URL, the zone
12 player 602 may retrieve the audio track from the
13 cloud and ultimately play the audio out of one or
14 more zone players."

15 Do you see that? 11:06AM

16 A I do.

17 Q Does that mean that a playback device
18 recited in Claim 13 of the '615 patent must be able
19 to communicate over the internet?

20 A If it's going to be retrieving URL, yes, 11:06AM
21 URLs.

22 MR. PAK: I actually don't have any other
23 questions. It seems like we're going to have a very
24 short dep here. Nima, do you have any questions you
25 would like to ask? 11:07AM

1 MR. HEFAZI: Yeah. Can we take a short 11:07AM
2 break and I can come back on the record and let you
3 know if I have any questions.

4 MR. PAK: Sure, how about we come back
5 at -- what time is it? 11:07AM

6 THE WITNESS: 11:07 here.

7 MR. HEFAZI: It's 11:07. How about if we
8 came back around 11:20?

9 MR. PAK: That sounds good.

10 VIDEOGRAPHER: This marks the end of Media 11:07AM
11 Number 2. Going off the record at 11:07 a.m.

12 (Recess taken.)

13 VIDEOGRAPHER: This marks the beginning of
14 Media Number 3. Going back on the record at
15 11:19 a.m. 11:19AM

16 MR. HEFAZI: Dr. Kyriakakis, no questions
17 for me. Thank you for your time. I appreciate it.

18 THE WITNESS: Thank you.

19 VIDEOGRAPHER: Counsel, is it okay to go
20 off the record? 11:20AM

21 MR. PAK: Yes.

22 MR. HEFAZI: Yes.

23 VIDEOGRAPHER: Thanks. We're off the
24 record at 11:20 a.m. And this concludes today's
25 testimony given by Dr. Chris Kyriakakis. 11:20AM

1 The total number of media used was three
2 and will be retained by Veritext Legal Solutions.

3 (Proceedings concluded at 11:20 a.m.)
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1 I, LYNNE M. LEDANOIS, a Certified
2 Shorthand Reporter of the State of California, do
3 hereby certify:

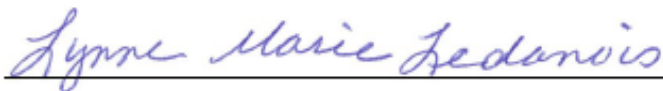
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10 Further, that if the foregoing pertains to
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12 Case, before completion of the proceedings, review
13 of the transcript [x] was [] was not requested.

14 I further certify I am neither financially
15 interested in the action nor a relative or employee
16 of any attorney or party to this action.

17 IN WITNESS WHEREOF, I have this date
18 subscribed my name.

19 Dated: March 3, 2022
20
21
22
23
24



LYNNE MARIE LEDANOIS

CSR No. 6811

CHRISTOS KYRIAKAKIS, PH.D.

ckyriak@usc.edu

March 3, 2022

RE: GOOGLE LLC VS. SONOS, INC.

MARCH 1, 2022, CHRISTOS KYRIAKAKIS, PH.D., JOB NO. 5112102

The above-referenced transcript has been completed by Veritext Legal Solutions and review of the transcript is being handled as follows:

___ Per CA State Code (CCP 2025.520 (a)-(e)) - Contact Veritext to schedule a time to review the original transcript at a Veritext office.

___ Per CA State Code (CCP 2025.520 (a)-(e)) - Locked .PDF Transcript - The witness should review the transcript and make any necessary corrections on the errata pages included below, notating the page and line number of the corrections. The witness should then sign and date the errata and penalty of perjury pages and return the completed pages to all appearing counsel within the period of time determined at the deposition or provided by the Code of Civil Procedure.

___ Waiving the CA Code of Civil Procedure per Stipulation of Counsel - Original transcript to be released for signature as determined at the deposition.

___ Signature Waived - Reading & Signature was waived at the time of the deposition.

Page 75

1 _X_Federal R&S Requested (FRCP 30(e)(1)(B)) - Locked .PDF

2 Transcript - The witness should review the transcript and
3 make any necessary corrections on the errata pages included
4 below, notating the page and line number of the corrections.
5 The witness should then sign and date the errata and penalty
6 of perjury pages and return the completed pages to all
7 appearing counsel within the period of time determined at
8 the deposition or provided by the Federal Rules.

9 ___ Federal R&S Not Requested - Reading & Signature was not
10 requested before the completion of the deposition.

1 RE: GOOGLE LLC VS. SONOS, INC.

2 CHRISTOS KYRIAKAKIS, PH.D., JOB NO. 5112102

3 E R R A T A S H E E T

4 PAGE_____ LINE_____ CHANGE_____

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6 REASON_____

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24 WITNESS

Date

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

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THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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